Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for optimizing frequency of a clock signal provided for operations of a network switch, said network switch comprising a clock signal generator for generating said clock signal, and a plurality of input/output ports for communicating therevia with at least one network node, said method comprising steps of:

asserting a control signal to said clock signal generator according to a ~~certain condition~~ a count of said input/output ports in use; and

adjusting the frequency of said clock signal outputted from said clock signal generator in response to said control signal.

2. (Cancelled)

3. (Currently Amended) The method according to claim [[2]] 1 wherein the step for adjusting the frequency of said clock signal comprises:

generating a first clock signal with a first frequency in response to a first control signal corresponding to a first count of said input/output ports in use;

generating a second clock signal with a second frequency higher than said first frequency in response to a second control signal corresponding to a second count of said input/output ports in use greater than said first count; and

generating a third clock signal with a third frequency lower than said first frequency in response to a third control signal corresponding to a third count of said input/output ports in use less than said first count.

4. (Currently Amended) The method according to claim [[2]] 1 further comprising a step of subtracting a count of said input/output ports without connecting to any network node from a total count of said input/output ports included in said network switch to obtain said count of said input/output ports in use.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) A method for adjusting a frequency of a clock signal provided for operations of a network switch, said network switch comprising a clock signal generator for generating said clock signal, and a plurality of input/output ports for communicating with a plurality of network nodes, said method comprising steps of:

detecting connection states of said input/output ports by counting said input/output ports currently connecting to said with said plurality of network nodes;

adjusting the frequency of said clock signal according to said connection states of said input/output ports with said plurality of network nodes; and

repeating said detecting and adjusting steps at intervals of a predetermined period.

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) A network switch for conducting data transmission among network nodes, comprising:

a first number of input/output ports for connecting to a variable number of network nodes, said variable number being equal to or less than said first number;

a connection-state detector in communication with said first number of input/output ports, detecting connection states of said input/output ports ~~with~~ <u>by counting</u> said variable number of network nodes, and asserting a control signal according to said connection states of said input/output ports; and

a clock signal generator generating a clock signal having a frequency determined according to said control signal.

12. (Cancelled)

13. (Cancelled)

14. (Original) The network switch according to claim 11 wherein said clock signal generator is a phase-locked loop clock signal generator.

15. (Original) The network switch according to claim 11 wherein said clock signal generator and said connection state detector are integrated in a control chip.